

**WRITTEN DECISION FROM THE
INTERNATIONAL SEARCH AUTHORITY
(ADDITIONAL SHEET)**

PCT/EP2004/050994

Re Item V**Reasoned statement with regard to novelty, inventive step and commercial applicability; documents and explanations to support this statement**

Reference is made to the following documents:

- D1: US 2002/178813 A1 (BABALA MICHAEL L) 5th December 2002 (2002-12-05)
- D2: WO 01/77620 A (FELL CHRISTOPHER PAUL; BAE SYSTEMS PLC (GB); TOWNSEND KEVIN (GB)) 18th October 2001 (2001-10-18)
- D3: DE 198 45 185 A (DAIMLER CHRYSLER AG) 20th April 2000 (2000-04-20)

Novelty:

- 1.1 Document D1 is considered to be the closest prior art in relation to the subject matter of Claim 1. It discloses (the references in brackets refer to this document) a method for monitoring a rotation rate sensor with a vibrational gyroscope, having the following features: a primary and a secondary control loop, the secondary control loop having a test signal added to it (paras [0032]-[0035]). It is thus possible to monitor the operation of the entire control loop, including the vibrational gyroscope, during operation without influencing the operation in any way.
- 1.2 The test signal in D1 is seemingly a fixed offset signal, i.e. a DC voltage signal, whereas the test signal in claim 1 is an AC voltage signal. The output signal in the second control loop is also demodulated into two components (inphase and quadrature) and the two components have a test signal applied to them separately.
- 1.3 The subject matter of independent claim 1 is therefore novel.

Inventive Step:

- 2.1 The problem which the additional feature over the prior art attempts to solve can be regarded as inadequate resolution of the noise sources.
- 2.2 The problem is not addressed in Document D1: the document therefore also contains no reference to a solution.
- 2.3 In Document D2, inphase and quadrature signals are demodulated separately in the second control loop, are filtered and are remodulated again (D2, p.3, l.13-p.4, l.6). However, a test signal is not supplied in D2, since this document is not concerned with monitoring. D3 describes separation of the inphase and quadrature signals for the self-test in a rotation rate sensor, and a modulation signal which is not added to the second but rather to the first control loop, however. The magnitude of the test signal is determined using an additional piezoelectric element (D3, col. 5, l.15-22 and Fig. 2).
- 2.4 The combination of the disclosure of Document D1 with either of Documents D2 and D3 does not lead to the subject matter of claim 1.
- 2.5 Consequently, the subject matter of claim 1 is based on an inventive step.
- 2.6 Claims 2-7 are dependent on claim 1 and therefore likewise meet the requirements of the PCT in relation to novelty and inventive step.